CDIAC – ADVANCED CONCEPTS AND PRACTICES FOR INVESTING PUBLIC FUNDS

PRODUCT SELECTION AND EVALUATION
NOVEMBER 16, 2006

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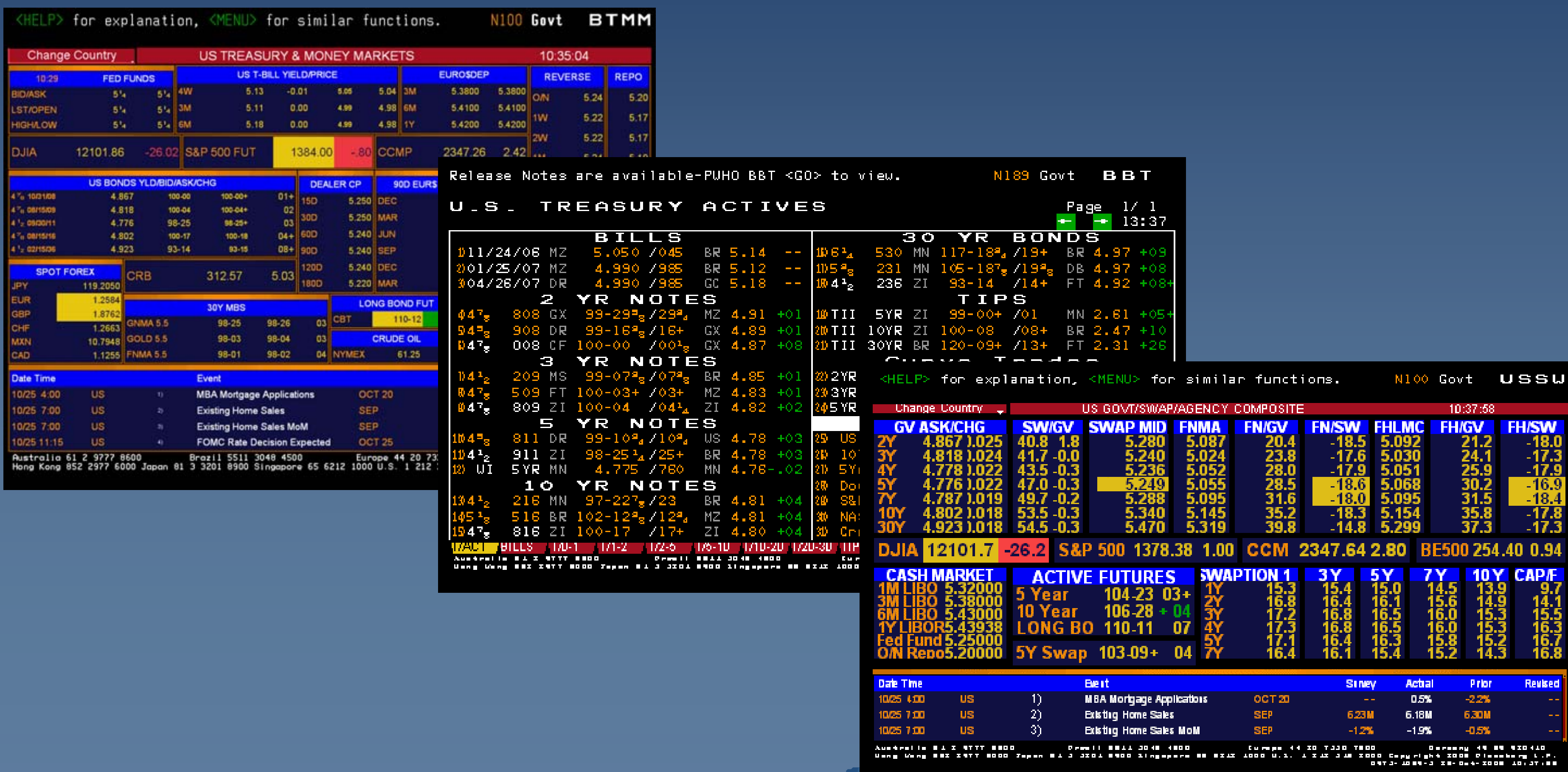
Agenda:

- Market Overview/Monitors
- Curves
- Credit Ratings
- Offering Pages/Inventory
- Trade History/Price Discovery
- Relative Value Tools/Analytics

Market Monitors

- BTMM - Treasury and Money Market Monitor
- BBT - Bloomberg Bond Trader. Live executable government pricing
- USSW - Governments, Swaps, Agency Benchmarks and Current Implied Volatilities.



Calendars Events and New Issue

- ECO - Economic Calendar for upcoming government statistics.
- NIM - New Issue Monitor for government, agency and corporate issuance.

<HELP> for explanation. N100 Govt ECO

Change Calendar | Change Date | Voice Alerts | Output Results To

10/25/06 United States Economic Releases

Date Time			Event		Survey	Actual	Prior	Revised
10/25 4:00	US	16)	MBA Mortgage Applications	OCT 20	--	0.5%	-2.2%	--
10/25 7:00	US	17)	Existing Home Sales	SEP	6.23M	6.18M	6.30M	--
10/25 7:00	US	18)	Existing Home Sales MoM	SEP	-1.2%	-1.9%	-0.5%	--
10/25 11:15	US	19)	FOMC Rate Decision Expected	OCT 25	5.25%	--	5.25%	--
10/26 5:30	US	20)	Durable Goods Orders	SEP	2.0%	--	-0.5%	--
10/26 5:30	US	21)	Durables Ex Transportation	SEP				
10/26 5:30	US	22)	Initial Jobless Claims	OCT 21				
10/26 5:30	US	23)	Continuing Claims	OCT 14				
10/26 7:00	US	24)	New Home Sales	SEP				
10/26 7:00	US	25)	New Home Sales MoM	SEP				
10/26 7:00	US	26)	Help Wanted Index	SEP				
10/27 5:30	US	27)	GDP Annualized	3Q A				
10/27 5:30	US	28)	GDP Price Index	3Q A				
10/27 5:30	US	29)	Personal Consumption	3Q A				
10/27 5:30	US	30)	Core PCE QoQ	3Q A				
10/27 6:45	US	31)	U. of Michigan Confidence	OCT F				
10/30 5:30	US	32)	Personal Income	SEP				
10/30 5:30	US	33)	Personal Spending	SEP				

NIM2 N100 Govt NIM

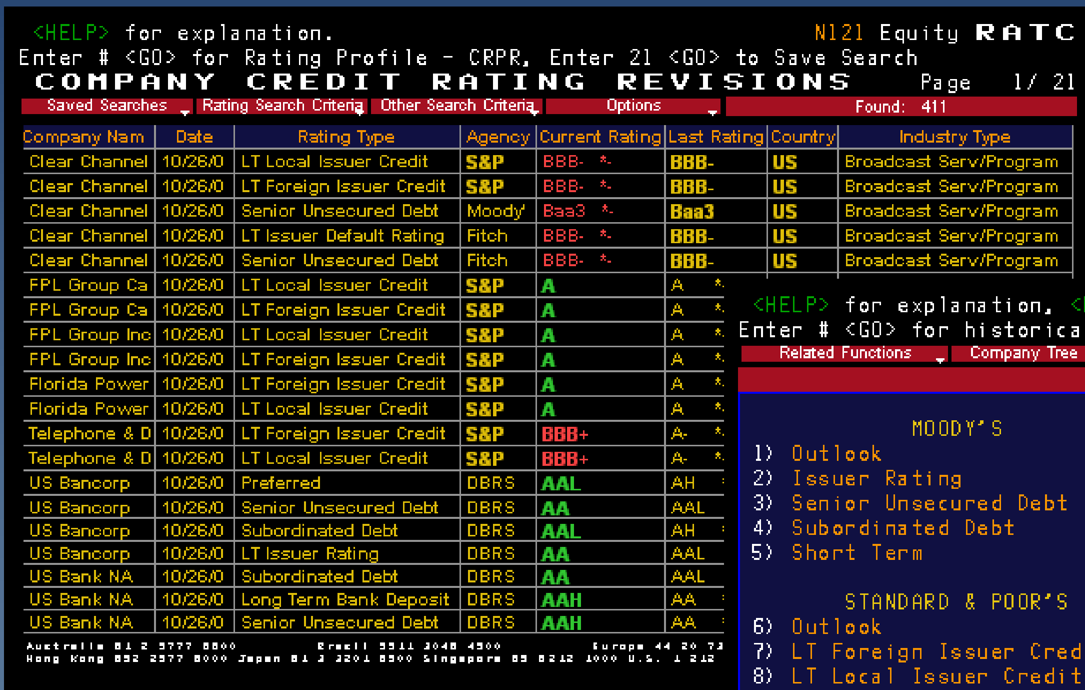
Enter # <GO> for DES. Page 1 / 29

New Issues: Agencies

	Issuer	Cpn (%)	Mty (M/D/Y)	Sprd (BP)	Outstand Amt (Mil)	Book Mgr (*=group)	Note
	--------- WEDNESDAY, OCTOBER 25 ---------						
1)	FED HOME LN BANK	5.55	11/13/09		USD 50	JEFF,UBS	3-NC3MO INC
2)	FED FARM CREDIT	5.08	12/02/09		USD 50	JPM	3-NC
3)	FED HOME LN BANK	$5\frac{1}{4}$	09/13/13		USD 665.8	MS	7-NC TAP INC
4)	FED FARM CREDIT	5.1	01/05/09		USD 100	JPM	2-NC
5)	FED FARM CREDIT	5.15	11/01/07		USD 10	FTN	1-NC
6)	FED HOME LN BANK	5.44	11/15/10		USD 15	GKST,STFL	4-NC1 1X
7)	FED HOME LN BANK	$5\frac{1}{2}$	11/21/11		USD 40	LEH	5-NC CONT
8)	FED HOME LN BANK	5.95	11/22/13		USD 15	PJC	7-NC6MO CONT
9)	FED HOME LN BANK	$5\frac{3}{4}$	11/22/11		USD 15	NOM	5-NC6MO CONT
10)	FED HOME LN BANK	$5\frac{1}{2}$	11/17/09		USD 40	NOM	3-NC6MO CONT
11)	FED HOME LN BANK	5.55	11/01/16		USD 15	JEFF,SUN	10-NC5 1X
12)	FED HOME LN BANK	$5\frac{1}{2}$	11/14/08		USD 50	CITI	2-NC3MO INC
13)	FED HOME LN BANK	5.2	05/02/07		USD 25	FTN	6MO-NC
14)	FED HOME LN BANK	5.35	11/15/07		USD 200	INCAP,MK	1-NC3MO INC
15)	FED HOME LN BANK	$5\frac{1}{2}$	11/06/13		USD 30	FTN	7-NC3 1X INC
	--------- TUESDAY, OCTOBER 24 ---------						
16)	FED HOME LN BANK	5.4	11/16/09		USD 25	CITI	3-NC1 1X
17)	FED HOME LN BANK	6	11/15/13		USD 100	DB	7-NC6MO INC
18)	FED HOME LN BANK	$5\frac{1}{4}$	04/30/08		USD 25	SUN	1.5-NC6M INC

Monitor all Credit Rating Changes

- Short and Long Term
- Moody's, S&P and Fitch

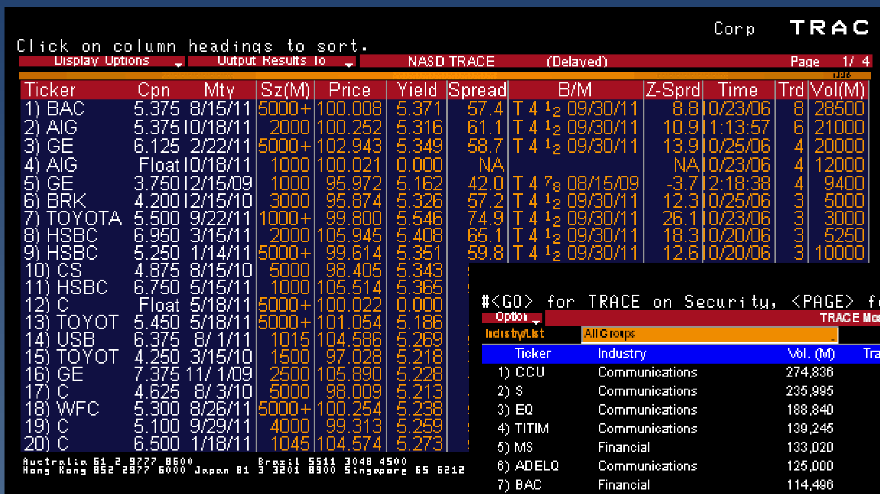


<HELP> for explanation. N121 Equity RATC
Enter # <GO> for Rating Profile - CRPR, Enter 21 <GO> to Save Search
COMPANY CREDIT RATING REVISIONS Page 1/ 21
Saved Searches | Rating Search Criteria | Other Search Criteria | Options | Found: 411

Company Nam	Date	Rating Type	Agency	Current Rating	Last Rating	Country	Industry Type
Clear Channel	10/26/0	LT Local Issuer Credit	S&P	BBB- *-	BBB-	US	Broadcast Serv/Program
Clear Channel	10/26/0	LT Foreign Issuer Credit	S&P	BBB- *-	BBB-	US	Broadcast Serv/Program
Clear Channel	10/26/0	Senior Unsecured Debt	Moody'	Baa3 *-	Baa3	US	Broadcast Serv/Program
Clear Channel	10/26/0	LT Issuer Default Rating	Fitch	BBB- *-	BBB-	US	Broadcast Serv/Program
Clear Channel	10/26/0	Senior Unsecured Debt	Fitch	BBB- *-	BBB-	US	Broadcast Serv/Program
FPL Group Ca	10/26/0	LT Local Issuer Credit	S&P	A	A *-		
FPL Group Ca	10/26/0	LT Foreign Issuer Credit	S&P	A	A *-		
FPL Group Inc	10/26/0	LT Local Issuer Credit	S&P	A	A *-		
FPL Group Inc	10/26/0	LT Foreign Issuer Credit	S&P	A	A *-		
Florida Power	10/26/0	LT Foreign Issuer Credit	S&P	A	A *-		
Florida Power	10/26/0	LT Local Issuer Credit	S&P	A	A *-		
Telephone & D	10/26/0	LT Foreign Issuer Credit	S&P	BBB+	A- *-		
Telephone & D	10/26/0	LT Local Issuer Credit	S&P	BBB+	A- *-		
US Bancorp	10/26/0	Preferred	DBRS	AAL	AH		
US Bancorp	10/26/0	Senior Unsecured Debt	DBRS	AA	AAL		
US Bancorp	10/26/0	Subordinated Debt	DBRS	AAL	AH		
US Bancorp	10/26/0	LT Issuer Rating	DBRS	AA	AAL		
US Bank NA	10/26/0	Subordinated Debt	DBRS	AA	AAL		
US Bank NA	10/26/0	Long Term Bank Deposit	DBRS	AAH	AA		
US Bank NA	10/26/0	Senior Unsecured Debt	DBRS	AAH	AA		

Price Discovery and Reporting

- TRAC: Trace trade reporting and capture
- TMAL: Monitor most active corporate bond issues
- QR: View a trading recap on bonds.



Corp TRAC

Click on column headings to sort.

Display Options | Output Results To | NASD TRACE (Delayed) | Page 1/ 4

Ticker	Cpn	Mty	Sz(M)	Price	Yield	Spread	B/M	Z-Sprd	Time	Trd	Vol(M)
1) BAC	5.375	8/15/11	5000+	100.008	5.371	57.4	T 4 ½ 09/30/11	8.8	10/23/06	8	28500
2) AIG	5.375	10/18/11	2000	100.252	5.316	61.1	T 4 ½ 09/30/11	10.9	11:13:57	6	21000
3) GE	6.125	2/22/11	5000+	102.943	5.349	58.7	T 4 ½ 09/30/11	13.9	10/25/06	4	20000
4) AIG	Float	10/18/11	1000	100.021	0.000	NA		NA	10/23/06	4	12000
5) GE	3.750	12/15/09	1000	95.972	5.162	42.0	T 4 ⅞ 08/15/09	-3.7	12:18:38	4	9400
6) BRK	4.200	12/15/10	3000	95.874	5.326	57.2	T 4 ½ 09/30/11	12.3	10/25/06	3	5000
7) TOYOTA	5.500	9/22/11	1000+	99.800	5.546	74.9	T 4 ½ 09/30/11	26.1	10/23/06	3	3000
8) HSBC	6.950	3/15/11	2000	105.945	5.408	65.1	T 4 ½ 09/30/11	18.3	10/20/06	3	5250
9) HSBC	5.250	1/14/11	5000+	99.614	5.351	59.8	T 4 ½ 09/30/11	12.6	10/20/06	3	10000
10) CS	4.875	8/15/10	5000	98.405	5.343						
11) HSBC	6.750	5/15/11	1000	105.514	5.365						
12) C	Float	5/18/11	5000+	100.022	0.000						
13) TOYOT	5.450	5/18/11	5000+	101.054	5.186						
14) USB	6.375	8/ 1/11	1015	104.586	5.269						
15) TOYOT	4.250	3/15/10	1500	97.028	5.218						
16) GE	7.375	11/ 1/09	2500	105.890	5.228						
17) C	4.625	8/ 3/10	5000	98.009	5.213						
18) WFC	5.300	8/26/11	5000+	100.254	5.238						
19) C	5.100	9/29/11	4000	99.313	5.259						
20) C	6.500	1/18/11	1045	104.574	5.273						

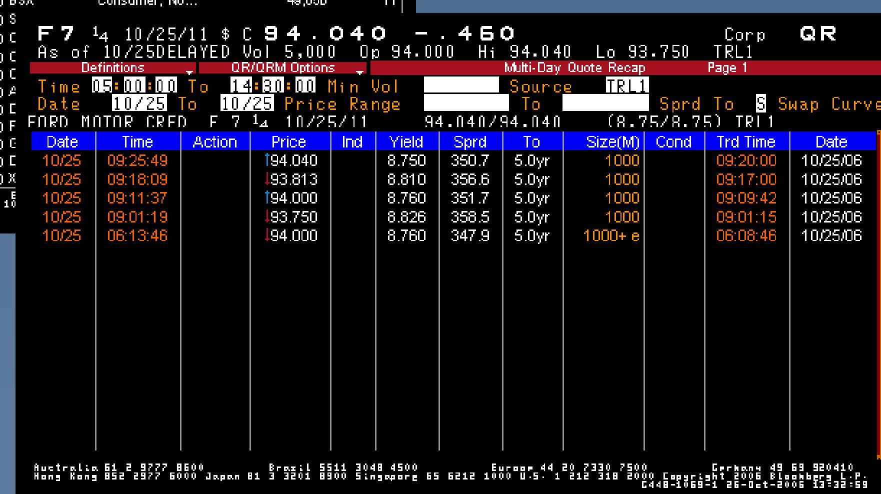
Corp TMAL

#<GO> for TRACE on Security, <PAGE> for More, Click a column to sort

Option | TRACE Most Active Issuer List | Page 1/65

Industry/List: All Groups | Trade Size: >= $1MM | Day: Today

Ticker	Industry	Vol. (M)	Trades	Ticker	Industry	Vol. (M)	Trades
1) CCU	Communications	274,836	84	20) T	Communications	64,205	16
2) S	Communications	235,995	58	21) PHM	Consumer, Cy...	60,929	14
3) EQ	Communications	188,840	43	22) WB	Financial	60,430	18
4) TITIM	Communications	139,245	39	23) HD	Consumer, Cy...	55,339	15
5) MS	Financial	133,020	35	24) KMI	Energy	51,570	12
6) ADELQ	Communications	125,000	126	25) MAGSMI	Technology	51,000	51
7) BAC	Financial	114,496	34	26) JPM	Financial	50,167	19
8) GE	Financial	108,822	45	27) CMCSA	Communications	50,050	17
9) DCX	Consumer, Cy...	107,547	28	28) BSX	Consumer, No...	49,650	11
10) MER	Financial	106,300	30	29) S			
11) OMC	Communications	92,360	24	30) C			
12) GS	Financial	90,304	29	31) C			
13) HSBC	Financial	82,919	20	32) C			
14) WFC	Financial	72,679	17	33) A			
15) LEH	Financial	70,600	19	34) D			
16) RHAT	Technology	69,000	69	35) F			
17) C	Financial	68,265	26	36) G			
18) CHTR	Communications	66,000	69	37) D			
19) AIG	Financial	64,700	22	38) X			



F 7 ¼ 10/25/11 $ C 94.040 -.460 Corp QR

As of 10/25 DELAYED Vol 5,000 Op 94.000 Hi 94.040 Lo 93.750 TRL1

Definitions | QR/QRM Options | Multi-Day Quote Recap | Page 1

Time 05:00:00 To 14:30:00 Min Vol Source TRL1

Date 10/25 To 10/25 Price Range To Sprd To S Swap Curve

FORD MOTOR CRED F 7 ¼ 10/25/11 94.040/94.040 (8.75/8.75) TRL1

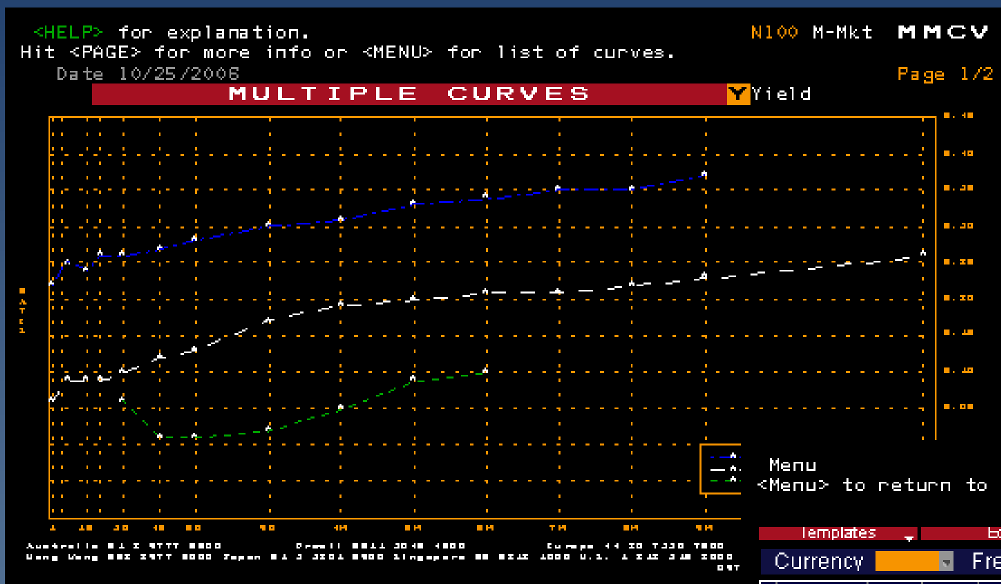
Date	Time	Action	Price	Ind	Yield	Sprd	To	Size(M)	Cond	Trd Time	Date
10/25	09:25:49		↑94.040		8.750	350.7	5.0yr	1000		09:20:00	10/25/06
10/25	09:18:09		↓93.813		8.810	356.6	5.0yr	1000		09:17:00	10/25/06
10/25	09:11:37		↑94.000		8.760	351.7	5.0yr	1000		09:09:42	10/25/06
10/25	09:01:19		↓93.750		8.826	358.5	5.0yr	1000		09:01:15	10/25/06
10/25	06:13:46		↓94.000		8.760	347.9	5.0yr	1000+ e		06:08:46	10/25/06

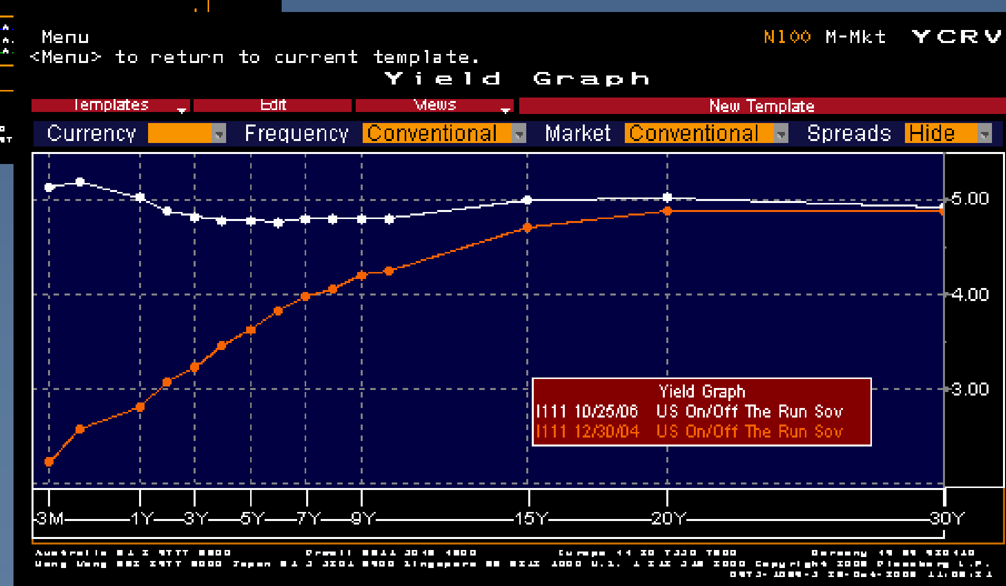
Know thy Curves

- The Curves:
  - – IYC – Government and Swap Curves
  - – MMCV – Money Market Curves
  - – FMC – Fair Market Corporate Sector Curves
  - – FMCI – Fair Market Curve Indices
  - – FMCS – Fair Market Curve Spreads
  - – FMCH – Fair Market Curve History
- Curve Analytics:
  - – YCRV - Analyze Current and Historical Yield curve trends.
  - – FWCV/FWCM –Forward Curve Monitors

Comprehensive Yield Curve Evaluation.

- MMCV – Multiple Curve Comparisons, Inter Market Spreads and Historical
- YCRV - Central Source for Yield Curve Analysis.





IYC – Benchmark Curves

- Generic global Sovereign, Swap, Agencies curves
- These are typically your benchmarks to spread from which credits are spread for relative value.

FMCS – Fair Market Credit Spreads

- Display/graph option-free yield curve spreads against a selected benchmark curve.

Backpage
Hit <MENU> for list of curves.

P059 M-Mkt **FMCS**

SPREADS TO ACTIVE U.S. GOVTS

Page 1/ 3

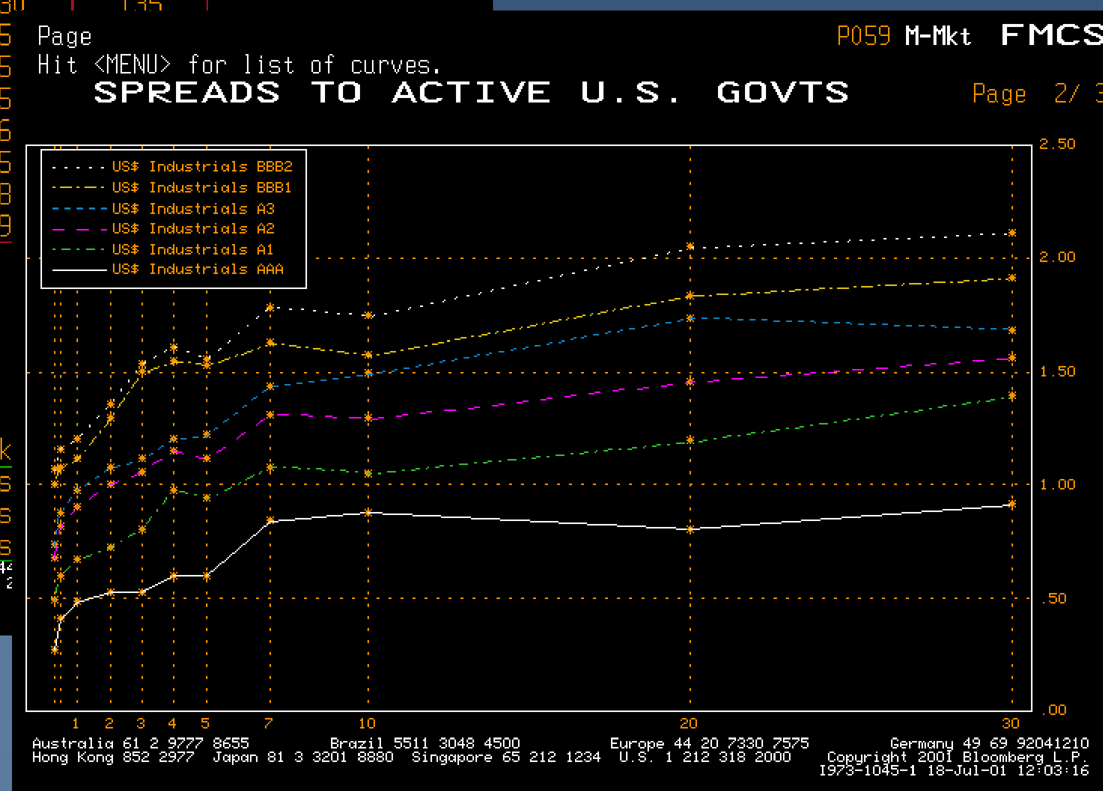
	1	5	6	7	8	9
3MO	27	48	68	73	100	106
6MO	41	60	81	87	107	116
1YR	48	67	90	97	111	120
2YR	52	72	100	107	130	135
3YR	52	81	106	112	15	
4YR	60	97	115	120	15	
5YR	60	95	110	122	15	
7YR	84	107	131	143	16	
10YR	87	105	130	149	15	
20YR	81	119	145	173	18	
30YR	91	140	156	168	19	

Currency

\+ indicates curve floats intraday with benchmark

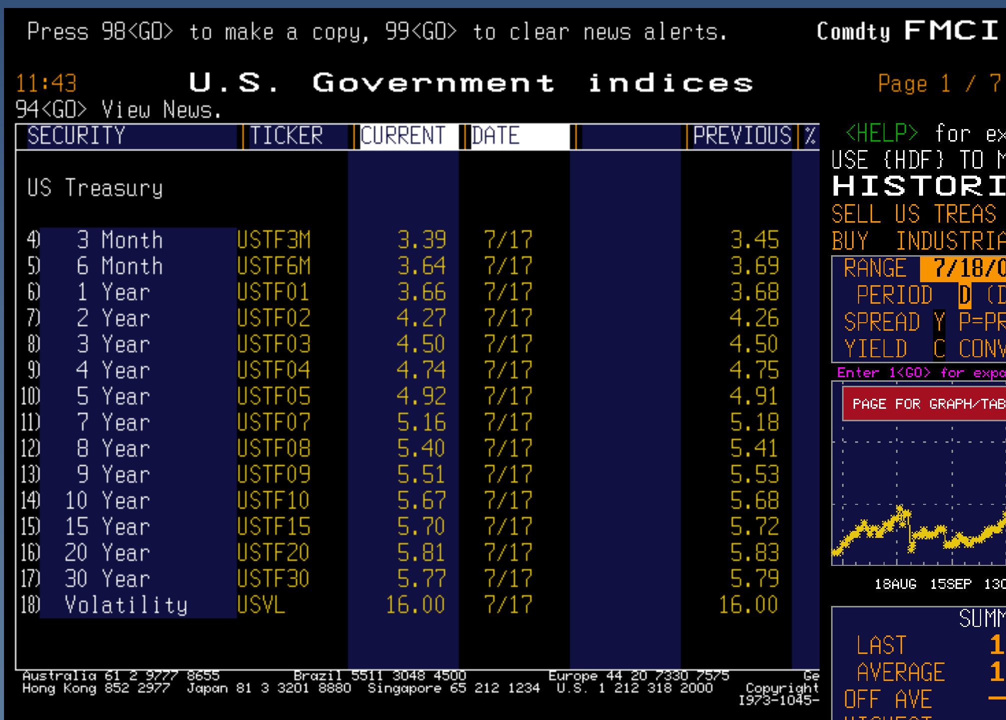
\+ 1: US$ Industrials AAA + 7: US$ Indus
\+ 5: US$ Industrials A1 + 8: US$ Indus
\+ 6: US$ Industrials A2 + 9: US$ Indus

Australia 61 2 9777 8655 Brazil 5511 3048 4500 Europe 44
Hong Kong 852 2977 Japan 81 3 3201 8880 Singapore 65 212 1234 U.S. 1 2



FMCI –Fair Market Curve Indices

- Individual maturity points within each curve are “tickerized” allowing for single and two security analytics.
- Incorporate individual yield curve points with HS<go> to spot historical trends and relative value trading opportunities.



Press 98<GO> to make a copy, 99<GO> to clear news alerts. Comdty **FMCI**

11:43 **U.S. Government indices** Page 1 / 7

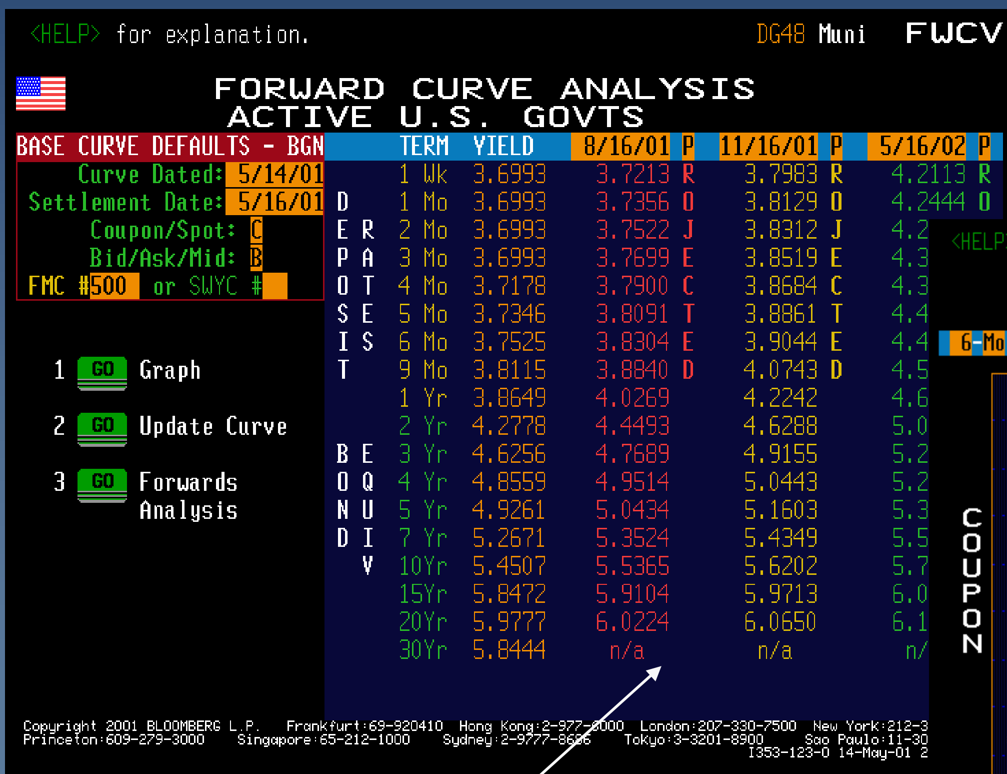
94<GO> View News.

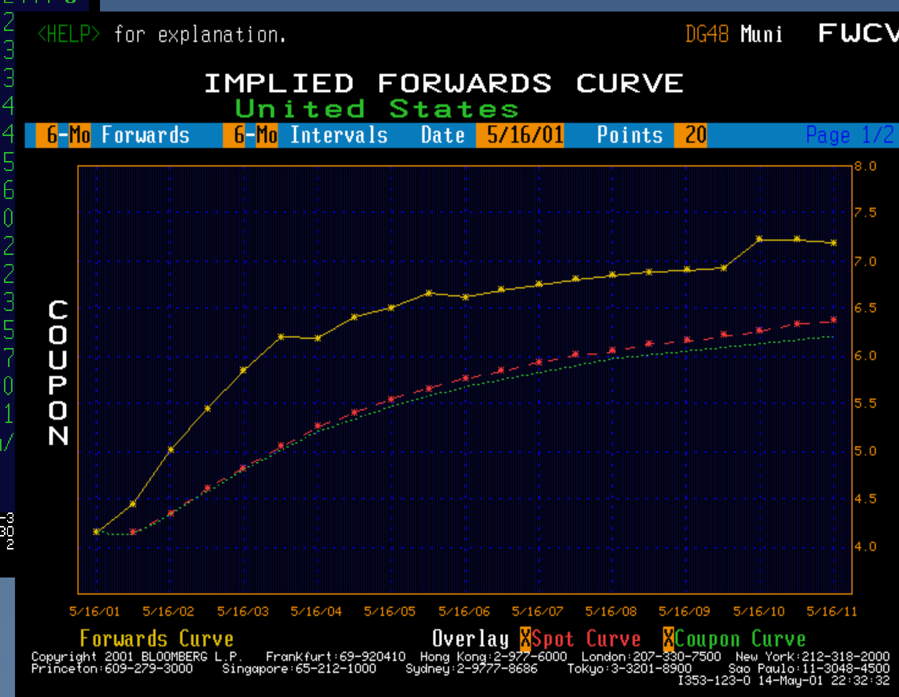
SECURITY	TICKER	CURRENT	DATE	PREVIOUS
US Treasury				
4) 3 Month	USTF3M	3.39	7/17	3.45
5) 6 Month	USTF6M	3.64	7/17	3.69
6) 1 Year	USTF01	3.66	7/17	3.68
7) 2 Year	USTF02	4.27	7/17	4.26
8) 3 Year	USTF03	4.50	7/17	4.50
9) 4 Year	USTF04	4.74	7/17	4.75
10) 5 Year	USTF05	4.92	7/17	4.91
11) 7 Year	USTF07	5.16	7/17	5.18
12) 8 Year	USTF08	5.40	7/17	5.41
13) 9 Year	USTF09	5.51	7/17	5.53
14) 10 Year	USTF10	5.67	7/17	5.68
15) 15 Year	USTF15	5.70	7/17	5.72
16) 20 Year	USTF20	5.81	7/17	5.83
17) 30 Year	USTF30	5.77	7/17	5.79
18) Volatility	USVL	16.00	7/17	16.00

Australia 61 2 9777 8655 Brazil 5511 3048 4500 Europe 44 20 7330 7575
Hong Kong 852 2977 Japan 81 3 3201 8880 Singapore 65 212 1234 U.S. 1 212 318 2000 Copyright 1973-1045-

FWCV – Forward Curve analysis

- Spot vs. Coupon rates
- Implied Forward Curve = Zero Volatility Scenario rate path in OAS analysis
- Z spread vs. traditional spreads
- Fundamental in OAS and Swap analytics

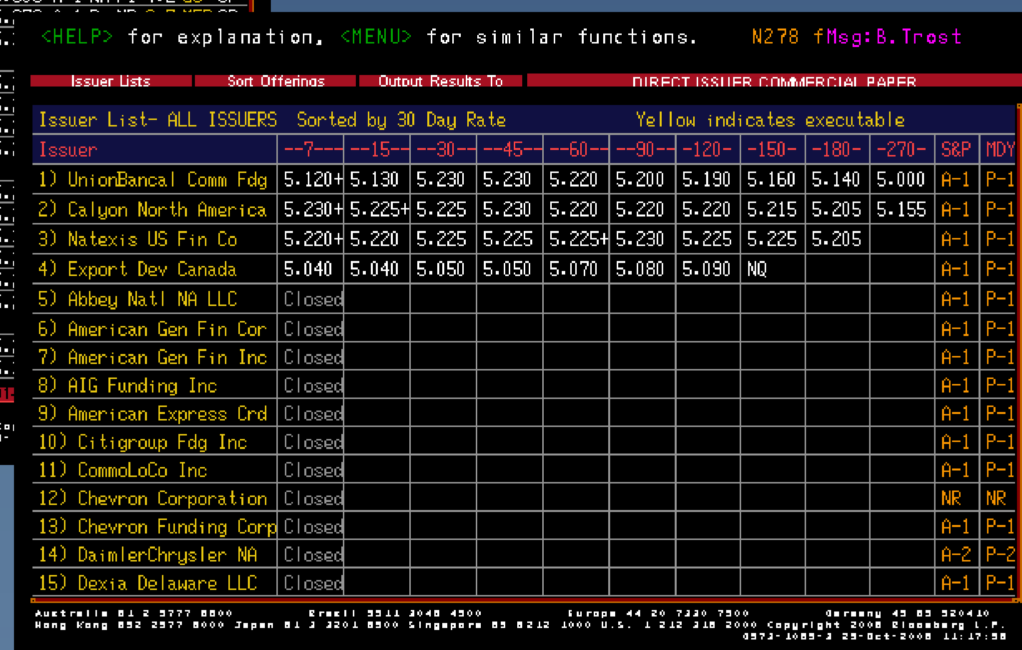




Coupon/Spot rates

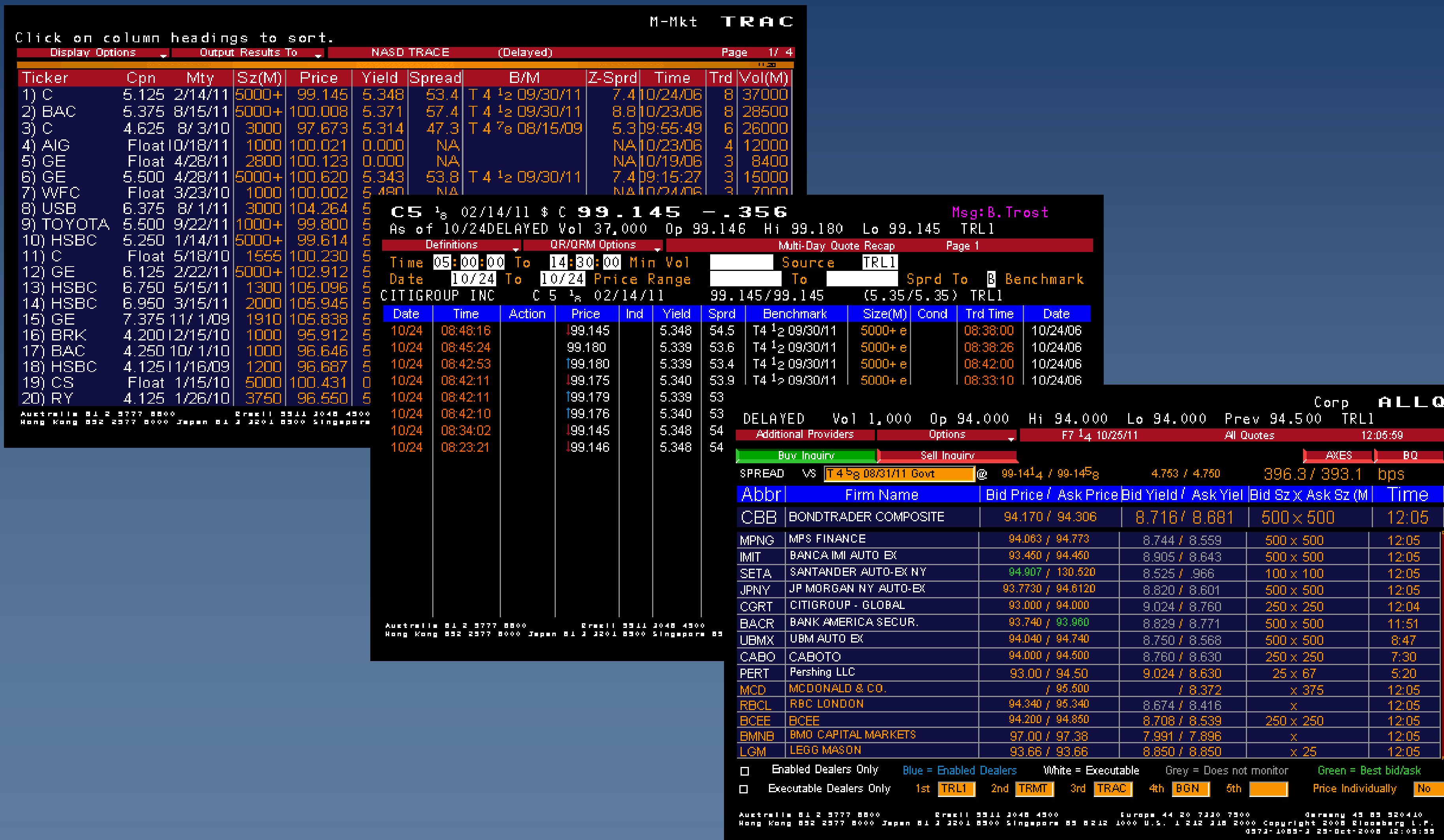
Complete Money Market Offerings

- BOOM/DOCP - Evaluate Competitive Commercial Paper Offerings. Set Customized Search Criteria including ratings, size, yield, maturity dates or a specific approved issuer list.



Search Trace Trade Database to Determine Fair Value.

- TRAC: Search and filter all trading Activity
- QR: Access individual bond trading activity.
- ALLQ: Comprehensive Quote Summary Page.



Relative Value Applications

- YA/YAS
  - Yield and Spread Analysis
- AOAS/BQ
  - Compare various bond structures on a common basis. Conduct OAS analysis with a variety of curves and volatility assumptions
- ASW
  - Compare various bonds against the LIBOR curve today using a cashflow yield spread methodology.
- HS
  - Spot historical trends/range
- SW
  - Analyze the 'dollar advantage' of the trade

Traditional Yield and Spread Analysis

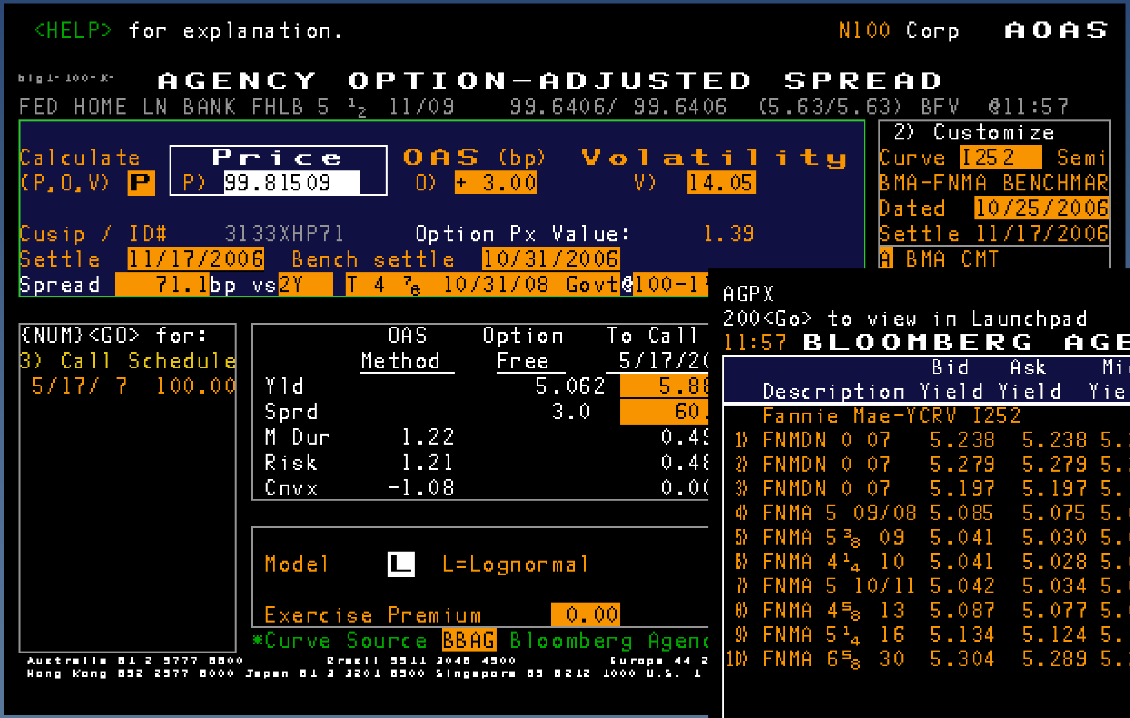
- DES - Comprehensive Descriptive Database of Securities
- YA/YAS/YTC - Yield and Spread Analysis both to Maturity and Call.

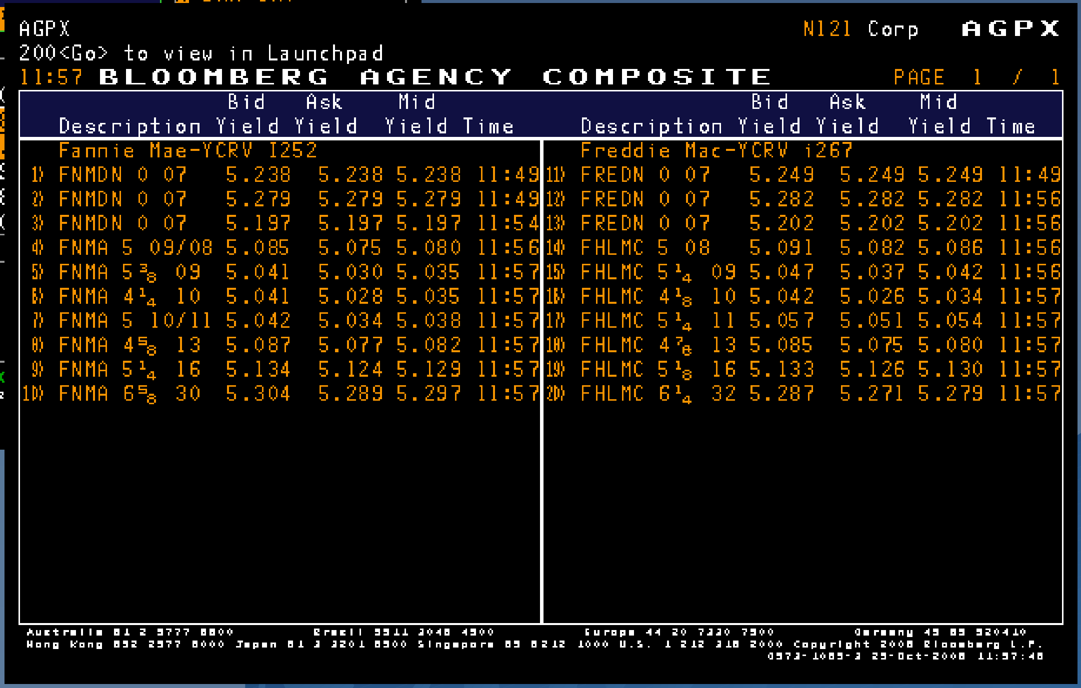
OAS - Advantages

- Allows for direct comparison to other fixed income securities based on a “pure credit spread” to a benchmark.
- Strips out the “optional” component of the bond to a bullet equivalent yield.
- Allows a PM to quickly and efficiently screen the “relative value” of a large number of securities in an ‘unbiased’ manner.
- Accounts for hidden risks such as “whipsaws” and “high volatility” interest rate paths not captured in traditional static yield analysis.

AOAS – Evaluate Callable Agency Structures:

- Uses BBG lognormal OAS model
- FNMA discount note yield adjustment to ED futures implied yields
- AGPX – Transparent Benchmark Yield Curves.



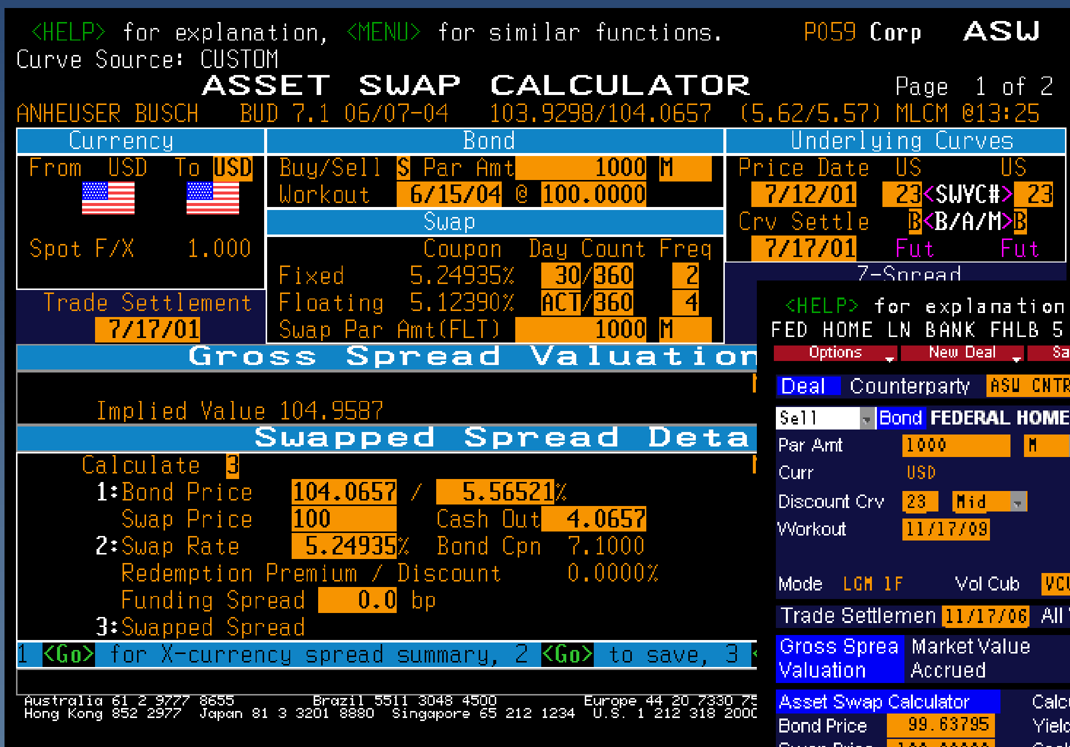


Comprehensive Bond Analysis

- BQ - Distinct models to capture the distinctively different type of optionality cost of each sector.

Asset Swaps: Relative Value

- Shows relative value of bond vs. the swap market
- Compare an asset swap vs. issuing floating debt.
- Swap Callable Agency Structures



HS – Historical Spreads

- Gauge the relative value of two securities/indices by graphing both yields together on one graph.

SS – Spread Summary

- Grasp how a security swap will affect your risk and proceeds.

SS   P059 Govt   SS

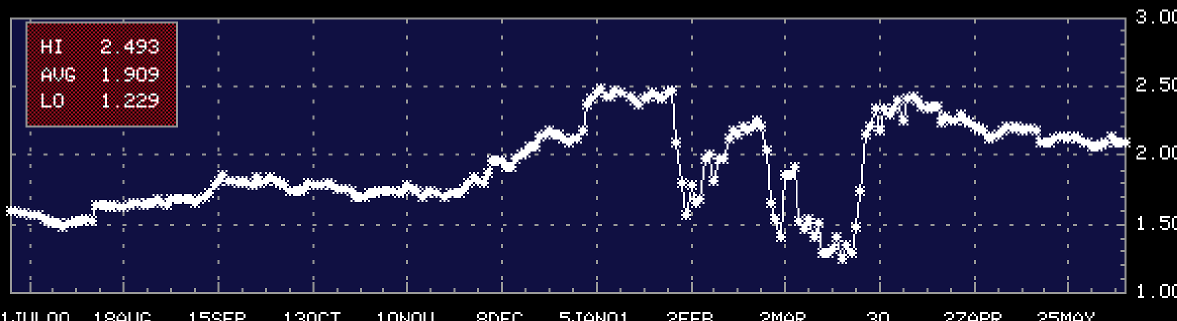
Enter all values and hit <GO>.

SPREAD SUMMARY	SELL	BUY MLCM	DIFFERENCE	RATIO
	GT10	KMB 7 ⅞ 02/01/23	Buy-Sell	Sell/Buy
PRICE	98-13+	104.077114	5.65524	.9457
YLD Cnv/Semi/Ann C	5.211	7.311	2.100	.7127
EFF YLD	5.211	7.311		
ACCRUED INTEREST	2.11326	3.69687	1.58362	.5716
PRICE +ACCRUED	100.53513	107.77399	7.23885	.9328
DURATION	7.5471	4.4611	-3.0861	1.6918
ADJUSTED DURATION	7.3555	4.3038	-3.0516	1.7091
RISK MEASURE	7.3948	4.6384	-2.7564	1.5943
CONVEXITY	0.6681	0.2348	-.4333	2.8454
SETTLEMENT DATE	7/18/01	7/20/01	BGN vs MLCM	
WORKOUT DATE/PRICE	Wrst 2/15/11 100	Wrst 2/ 1/07 102.31	NY/Close vs Close	
			Bid vs Mid	

SPREAD HISTORY

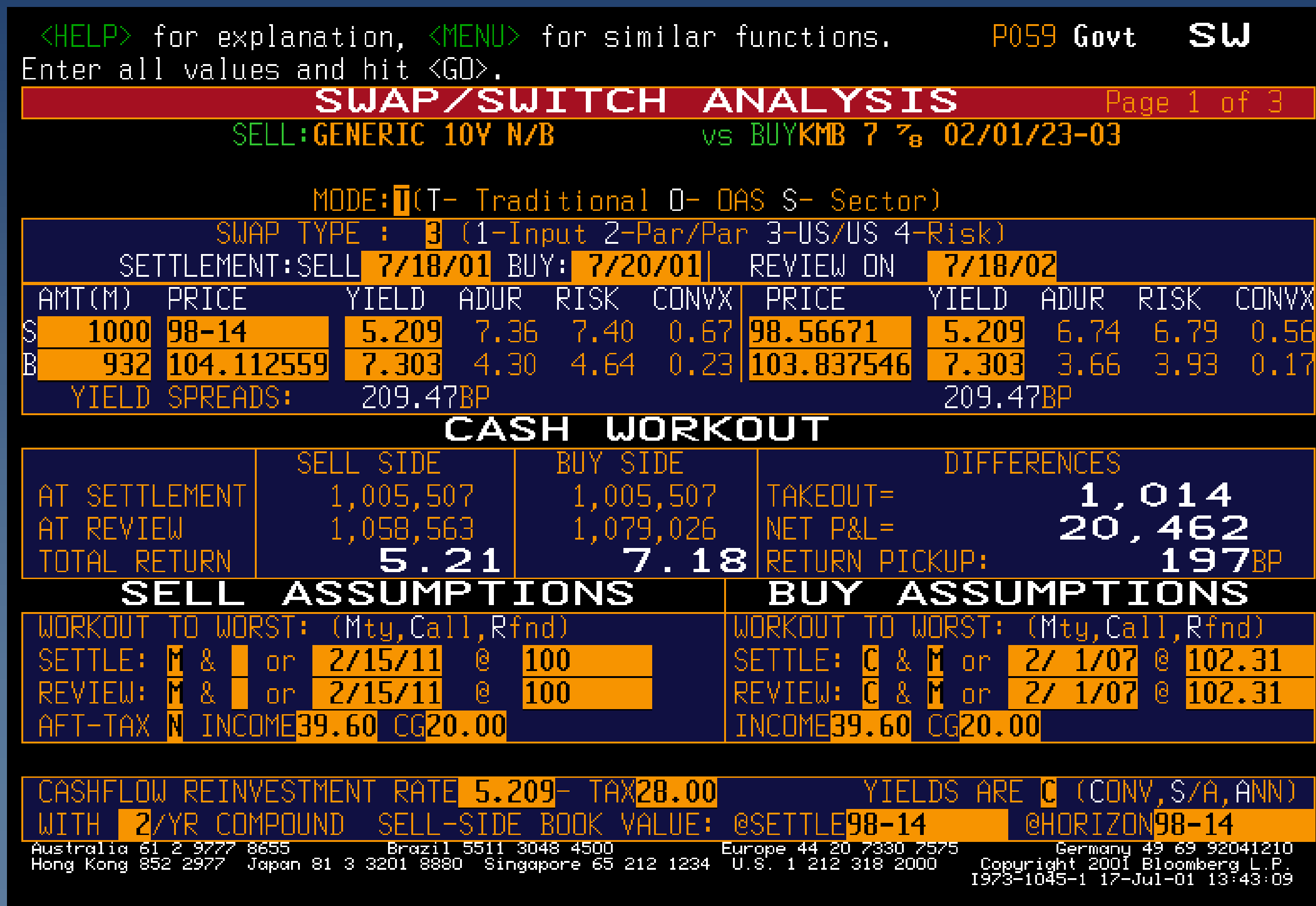
7/17/00 to 6/12/01

Yields : 3 Decimals



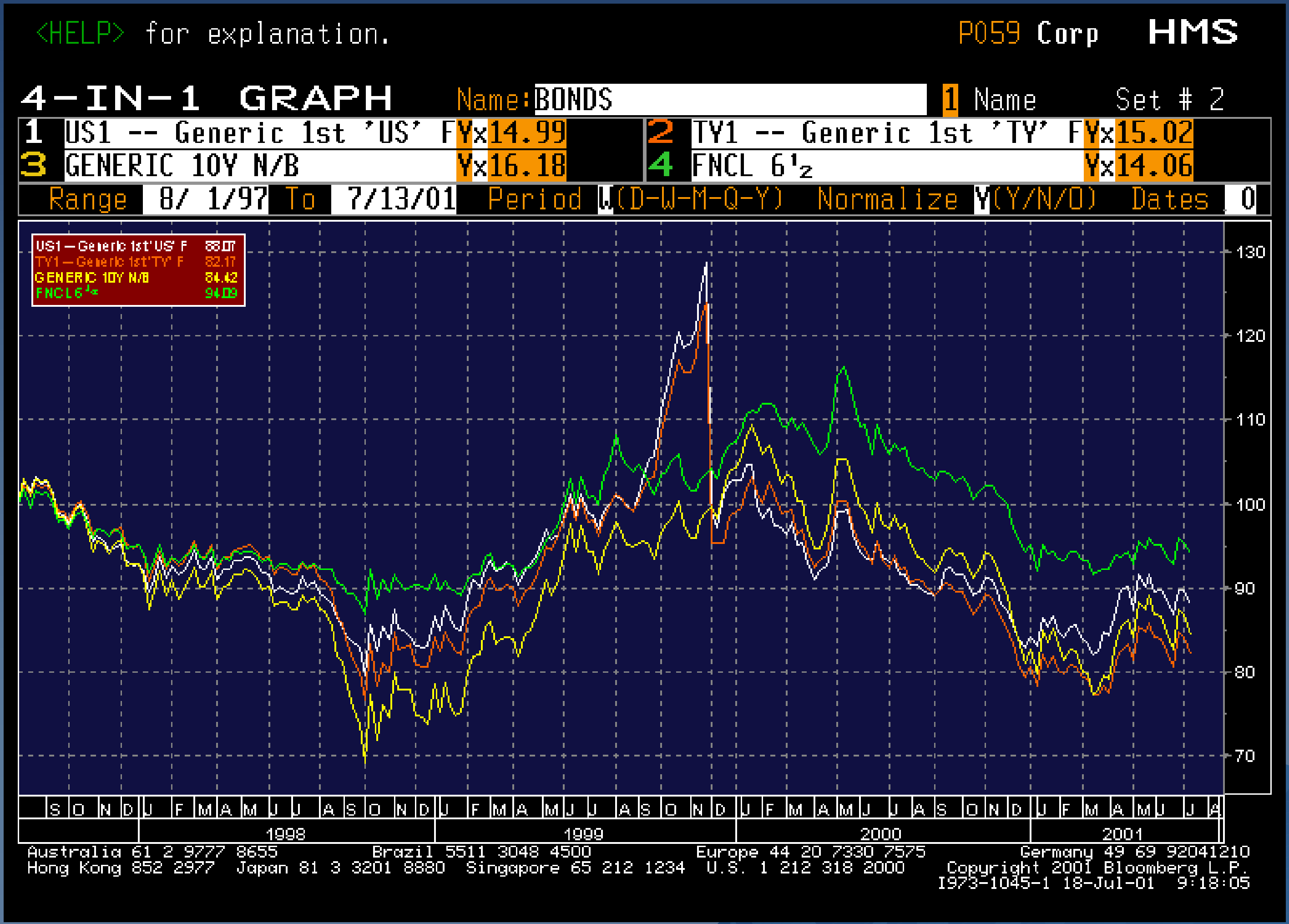
SW – Swap Switch Analysis

- Value the dollar advantage of a swap and compare the net return to a specified horizon date with your customized interest rate and spread assumptions.



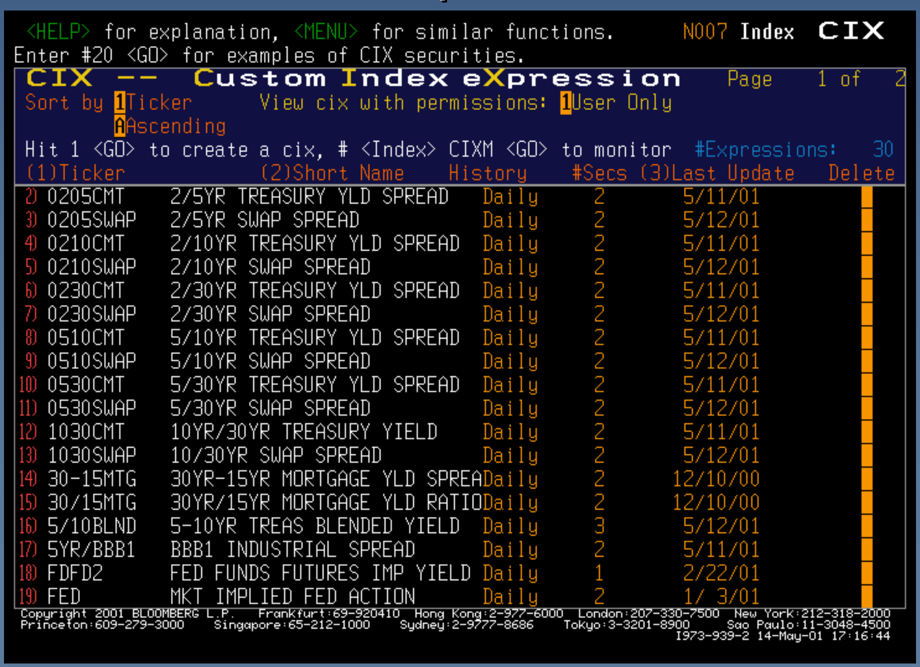
HMSM: 4-in-1 graphs

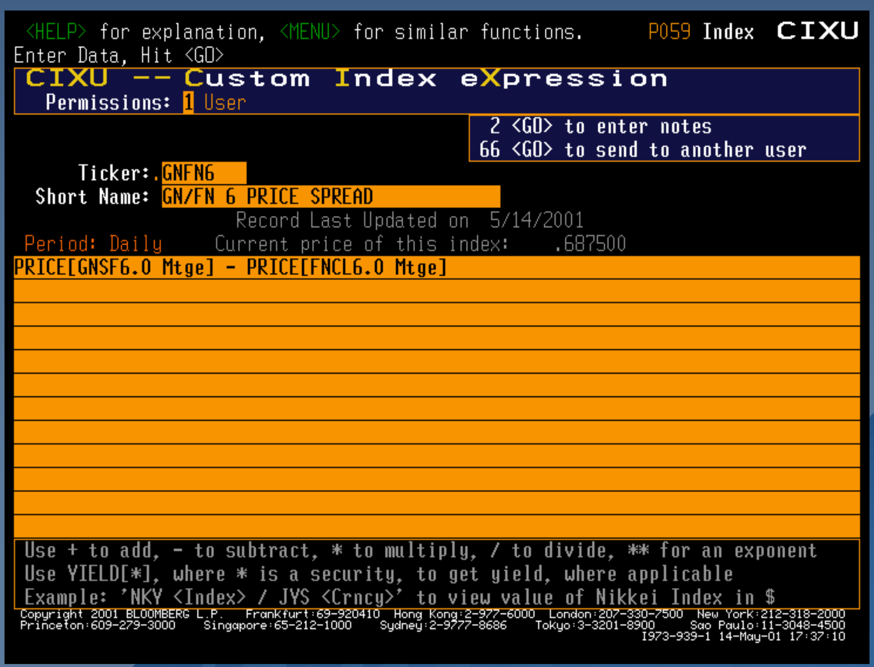
- graphs up to 4 historical relationships among instruments in a single graph. Compare on a absolute or normalized basis.



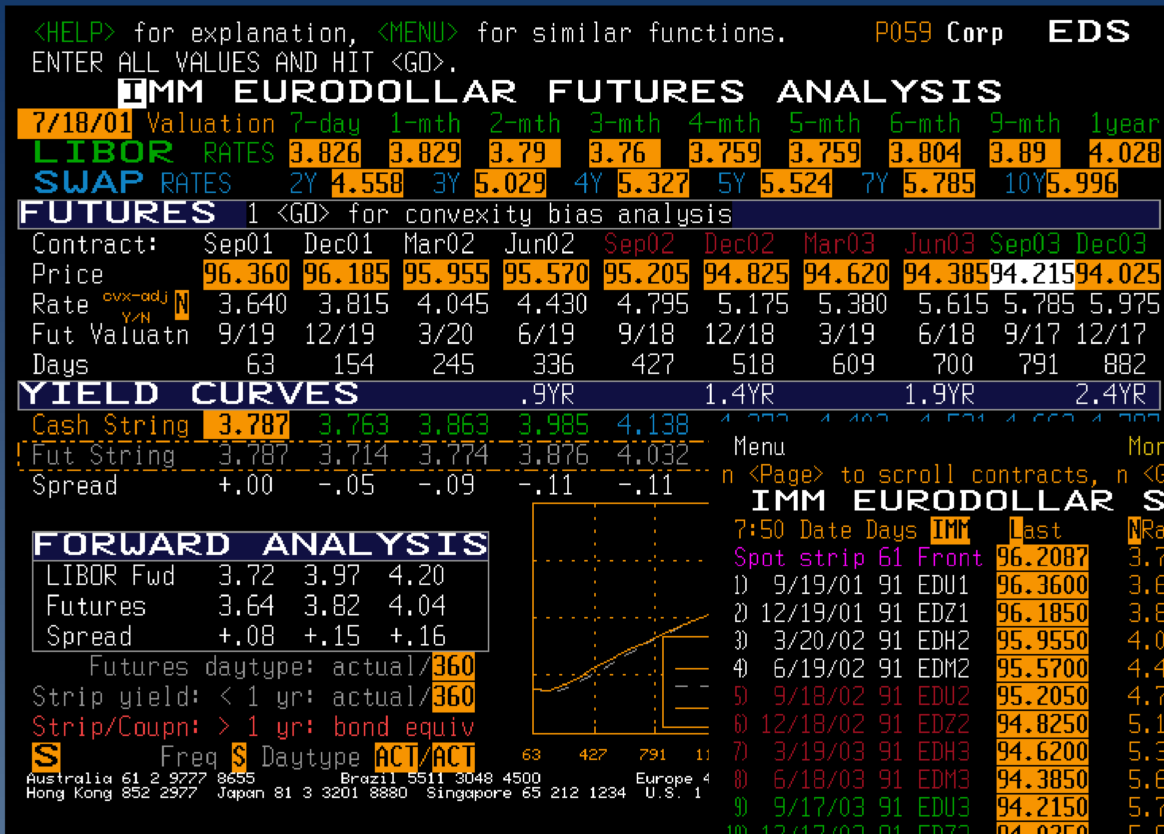
CIX- Custom Indices

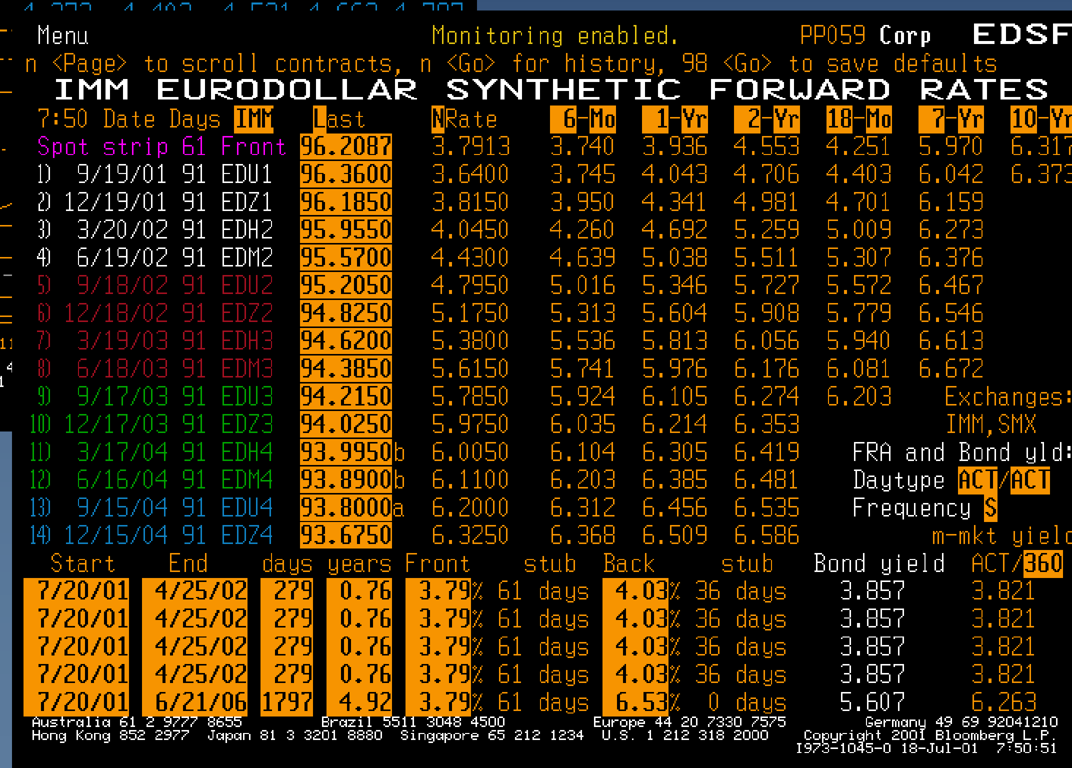
- Create custom indices using mathematical relationships.
- Great for tracking spread levels, volatility of spreads, spread comparisons, etc… Some examples:
  - Real interest rates by maturities
  - Implied Fed Rate
  - Credit spreads





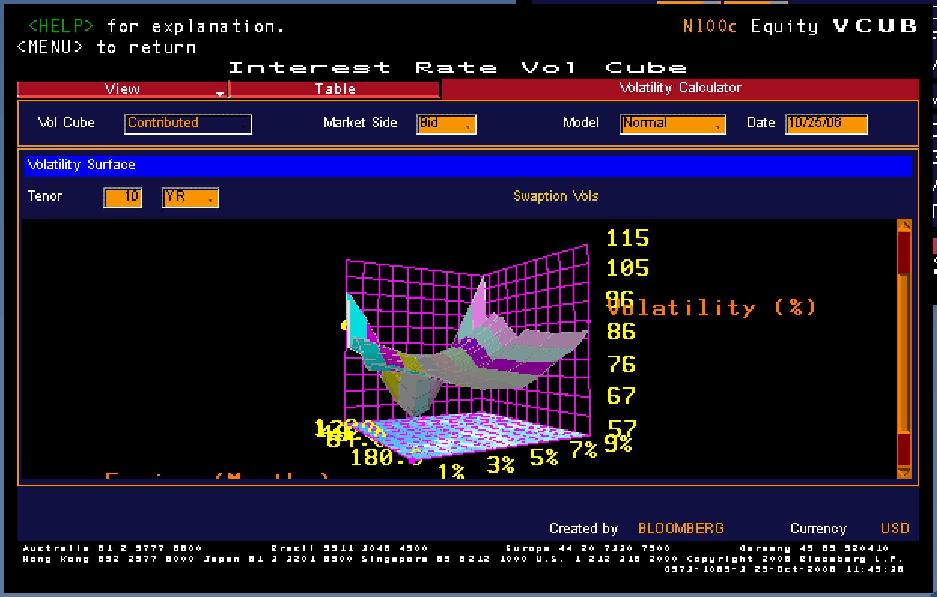
Eurodollars futures strips





Derivative Calculators

- <u>Calculators:</u>
  - SWPM: plain vanilla swaps, muni/BMA/%LIBOR swaps, cap/floor/collar, and swaptions

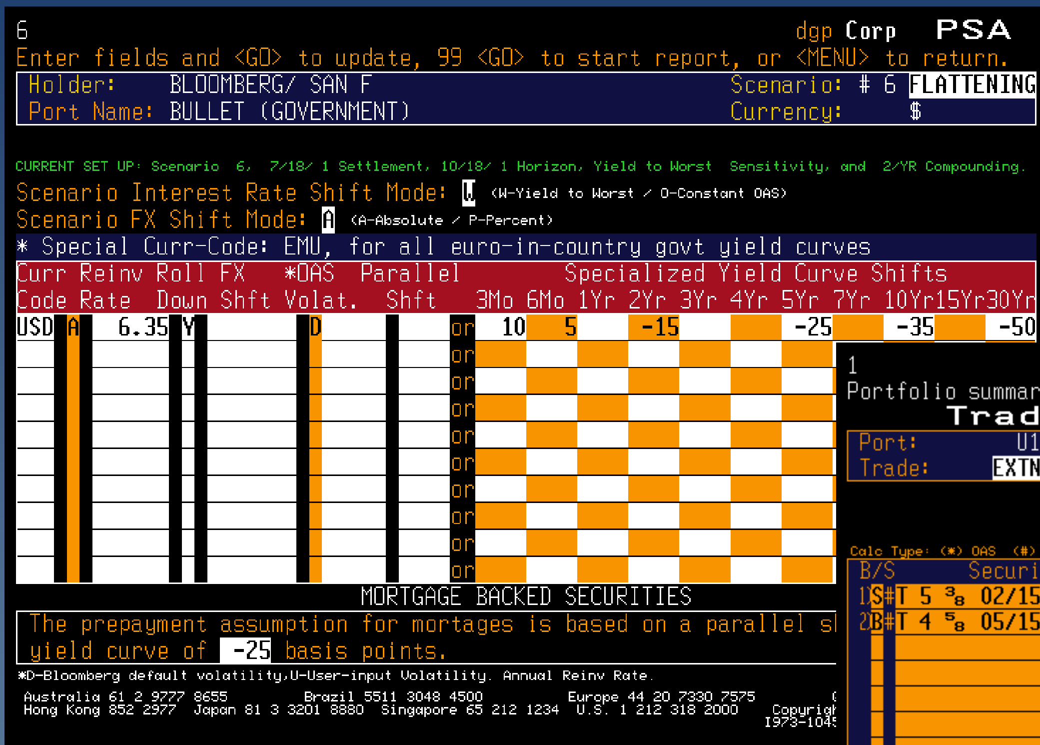


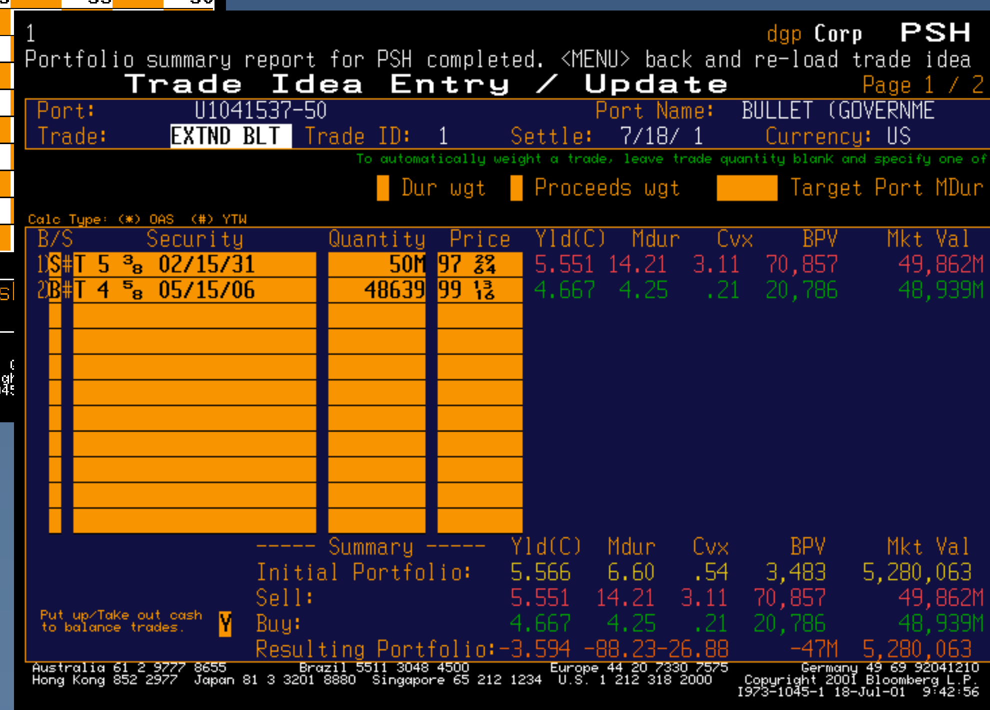
‘Suite’ of Fixed Income Portfolio Analytics

- PRTU: Create/Update/Delete your personal portfolios.
- PRPT: Create/Run customized portfolio reports
- PKRD: Grid point deltas (partial durations)
- POAS: Portfolio OAS reports
- PGR: Portfolio Grade (duration/convexity summary)
- PSA/PSH: Portfolio Scenario Analysis
- PRSK: ‘New Enhanced’ Portfolio Scenario Analysis

PSA/PSH: Portfolio Scenario Analysis

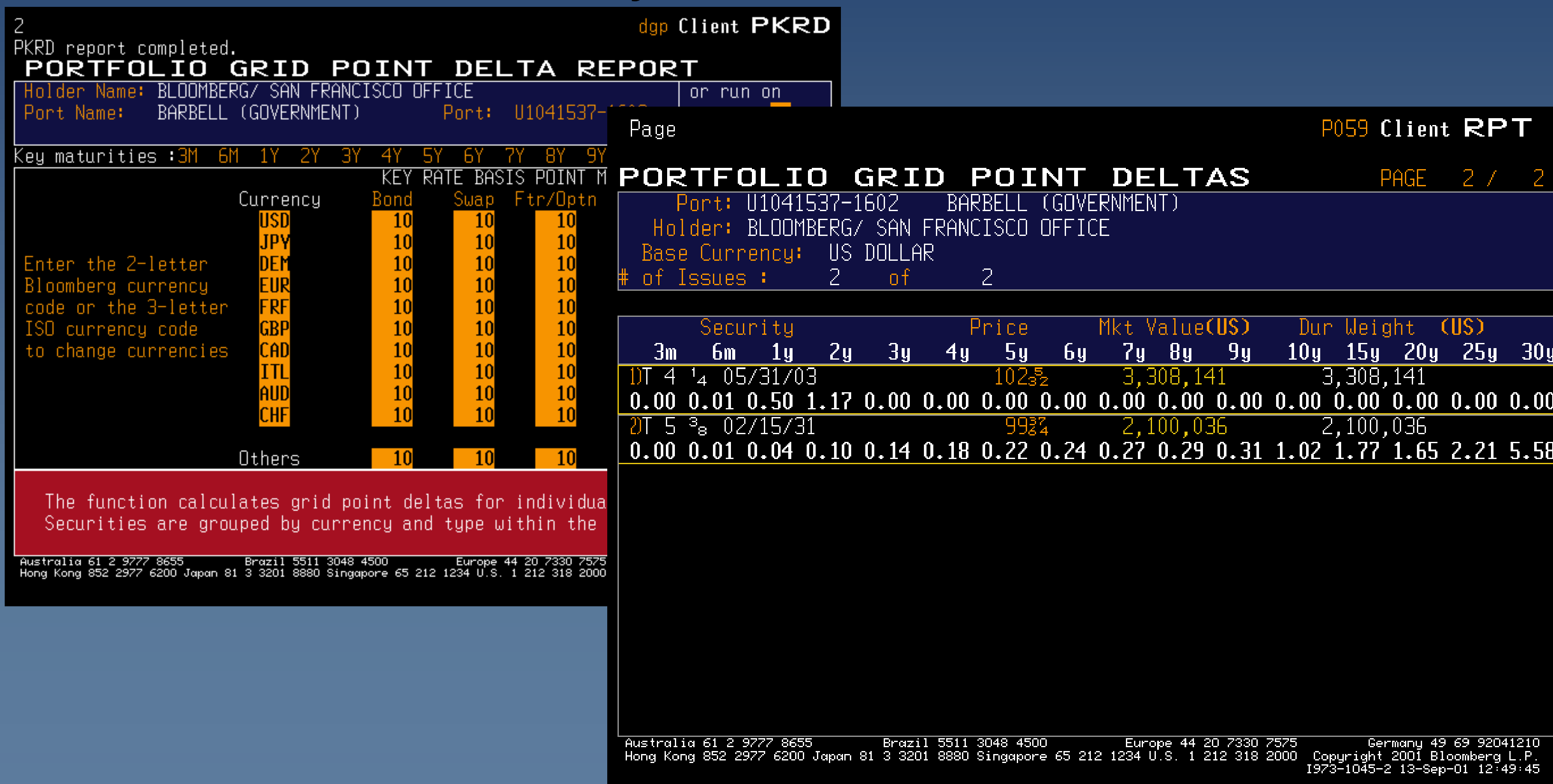
- Test your trade strategies on actual portfolios.
- Scenario test your portfolio against various dynamic interest rate environments on either a shock or horizon basis.





PKRD – Partial Duration Report

- Analyze your exposure to the ‘shape of the yield curve’
- Manage your interest rate exposure on a sector/security basis



API: Ultimate flexibility in fixed income analysis

- Table Wizard:
- API<go>: API homepage
- BBXL<go>: API manual and spreadsheet examples.